



## California Sportfishing Protection Alliance

*"An Advocate for Fisheries, Habitat and Water Quality"*

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10 May 2009

Mr. Ken Landau, Assistant Executive Officer  
Ms. Diana Messina, Senior WRCE  
Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission  
Hardcopy if Requested

RE: Renewal of Waste Discharge Requirements (NPDES No. CA0079898) and Consideration of Cease And Desist Order for City of Grass Valley Wastewater Treatment Plant, Nevada County

Dear Mr. Landau and Ms. Messina,

The California Sportfishing Protection Alliance (CSPA) has previously submitted comments on the proposed Waste Discharge Requirements (NPDES No. CA0079898) for the City of Grass Valley Wastewater Treatment Plant (Permit). Those comments, as applicable, are incorporated by reference. CSPA submits the following additional comments on the recent modifications to the tentative Permit.

**1. The proposed Permit amendment includes misleading and incorrect information regarding domestic and municipal beneficial uses of the receiving waters.**

The proposed Permit amendment states that:

“As stated above, the beneficial uses of Wolf Creek include municipal and domestic supply. However, there are no documented drinking water intakes downstream of the discharge. In a letter to the Regional Water Board dated 6 August 2007, the Nevada Irrigation District (NID), which uses water diverted from Wolf Creek a couple of miles downstream from Discharge Point No. 001 to transport water from upper watershed areas to western Nevada County, indicated that they do not use the diverted water as a supply for treated water (potable) and were not aware of anyone using the diverted water for in-home use. In a second letter to the Regional Water Board on 3 March 2009, NID outlined their uses of water diverted from Wolf Creek downstream of Discharge Point No. 001 as follows:

- “• All District raw water sales off Wolf Creek below the City of Grass Valley are for agricultural use only.

- The District does not own operate any domestic water treatment plants that use water from Wolf Creek below the City of Grass Valley. There is no domestic water service by the District with water from Wolf Creek.
- District policy and State law prohibit the District from providing raw water for human consumption. In February of 2000, a survey was conducted of all District year-round water users. The 2000 survey indicated all year-round water users off the Wolf Creek system below the City of Grass Valley have a well on their property as their domestic water supply.”

Although there are no known drinking water intakes downstream of the discharge point and NID policy and State law prohibit NID from providing raw water for human consumption, municipal and domestic supply is a designated beneficial use of Wolf Creek that must be protected. The requirements of this Order are protective of the municipal and domestic supply in Wolf Creek.”

In discussing Nevada Irrigation District’s providing raw water for consumption, we present the following excerpt from the Regional Board’s NPDES permit for Placer County SMD-1 (ORDER NO. R5-2005-0074, NPDES NO. CA0079316): “In reviewing whether existing and/or potential uses of the Sacramento River, between the Colusa Basin Drain and the I Street Bridge, and for the Bear River, are applicable to Coon Creek, Dry Creek, and Rock Creek, the Regional Board considered the following facts:

- a. Municipal and Domestic Supply and Agricultural Irrigation and Stock Watering Supply: Municipal, domestic and food crop irrigation beneficial uses have been site-specifically confirmed for waters downstream of the wastewater treatment plant. State Board Resolution No. 88-63, a part of the Basin Plan pursuant to Regional Board Resolution 89-056, requires the Regional Board to assign the beneficial uses of municipal and domestic supply, to Rock Creek, Dry Creek, and Coon Creek. The State Water Resources Control Board (SWRCB) has issued numerous water rights, for domestic and irrigation uses, on Main Canal and downstream waters, the Sacramento River, the Bear River, and the Feather River, downstream of the discharge. Many of the waterways downstream of the discharge are managed by irrigation districts and retain the domestic and irrigation beneficial uses. Nevada Irrigation District (NID) controls the flows in Dry Creek, Coon Creek, and Camp Far West Ditch. Staff of NID confirmed the existence of domestic uses of this water by reporting that water from Camp Far West Ditch is utilized for in-home use. NID requires the homeowner to purchase 5 gallons of bottled drinking water per month. NID sells water from Coon Creek and Camp Far West Ditch and has assessed the principal uses as family garden use and pasture irrigation. Over a distance of approximately 25 miles on Camp Far West Ditch, there are 37 irrigation customers, two of whom have irrigation water connected to their homes. Riparian Rights, for landowners along streams and rivers, are not recorded with the SWRCB and have precedence over other

water rights and may include domestic and municipal uses. The wastewater discharge occurs in a residential area and the effluent immediately flows through numerous yards lining the Creek. Home garden irrigation has been identified as an existing beneficial use of the receiving stream.” (Emphasis added)

There is no indication in the proposed Permit amendment that the Regional Board investigated the issuance of water rights by the State Board along Wolf Creek to confirm the presence or absence of domestic and municipal users.

There is no indication in the proposed Permit amendment that the Regional Board considered Riparian Rights, for landowners along streams and rivers, which may not be recorded with the SWRCB and have precedence over other water rights and may include domestic and municipal uses. On 11 March 2009 the Sacramento Bee reported as follows: “Vicky Whitney, deputy director of the state Water Resources Control Board, said officials know little about the amount of water consumed by so-called "riparian" water rights holders. Riparian rights, usually attached to properties that border streams, are the most senior category of water entitlement in California. Riparian rights holders must annually report to the state how much water they divert. But Whitney said only about 10 percent do so, and her agency does not have the power to enforce compliance.” CSPA representatives have observed numerous pipes along Wolf Creek; the Regional Board’s conclusion that domestic and municipal uses do not exist along this water body is unsupported, undocumented and conclusory.

**2. The proposed Permit amendment inappropriately removes Effluent Limitations for copper, lead and zinc based on a reasonable potential analysis utilizing the hardness of the effluent as opposed to the ambient receiving water hardness as required by Federal Regulations, the California Toxics Rule (CTR, 40 CFR 131.38(c)(4)).**

The proposed Permit amendment Fact Sheet contains the following excerpts:

“**Copper.** The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for copper. The criteria for copper are presented in dissolved concentrations. USEPA recommends conversion factors to calculate dissolved criteria. The USEPA default conversion factors for copper in freshwater are 0.96 for both the acute and the chronic criteria. As discussed further in section IV.C.2.d of this Fact Sheet, the applicable WER value for copper is 6.49. Using the worst-case measured hardness from the effluent (90 mg/L) and receiving water (21 mg/L), the default conversion factors, and the WER of 6.49, the applicable chronic criterion (maximum 4-day average concentration) is 53 ug/l and the applicable acute criterion (maximum 1-hour average concentration) is 79 ug/l, as dissolved concentrations. As discussed in section IV.C.2.e of this Fact Sheet, the applicable translator values for copper are 1.05 (1/fD) for acute freshwater and 1.19 (1/fD) for chronic freshwater. Using the site-specific translators to translate the dissolved criteria to total criteria, the applicable acute criterion is 83  $\mu$ g/L and the applicable chronic criterion is 63  $\mu$ g/L, as total recoverable.

The MEC for total copper was 18 ug/l, based on 43 samples collected between 1 January 2005 and 6 March 2008. Therefore, the discharge does not have a reasonable potential to cause or contribute to an in-stream excursion above the CTR criteria for copper.” (Track changes mode deleted, emphasis added)

**Zinc.** The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for zinc. The criteria for zinc are presented in dissolved concentrations. USEPA recommends conversion factors to calculate dissolved criteria. The USEPA default conversion factors for zinc in freshwater are 0.978 for the acute criteria and 0.986 for the chronic criteria. As discussed further in section IV.C.2.d of this Fact Sheet, the applicable WER value for zinc is 1.70. Using the worst-case measured hardness from the effluent (90 mg/L) and receiving water (21 mg/L), the default conversion factors, and the WER of 1.70, the applicable chronic criterion (maximum 4-day average concentration) and the applicable acute criterion (maximum 1-hour average concentration) are each 182  $\mu\text{g/L}$  and 184  $\mu\text{g/L}$ , respectively, as dissolved concentrations. As discussed in section IV.C.2.e of this Fact Sheet the applicable translator values for zinc are 1.03 (1/fD) for acute freshwater and 1.19 (1/fD) for chronic freshwater. Using the site-specific translators to translate the dissolved criteria to total criteria, the applicable acute criterion is 187  $\mu\text{g/L}$  and the applicable chronic criterion is 219  $\mu\text{g/L}$ , as total recoverable.

The MEC for total zinc was 177 ug/l, based on 43 samples collected between 1 January 2005 and 6 March 2008. Therefore, the discharge does not have a reasonable potential to cause or contribute to an in-stream excursion above the CTR criteria for zinc.

For lead, the Discharger acknowledged that the study did not satisfy the recommended minimum number of translator samples, but pointed out that it was apparent that dissolved lead does not have a large ambient presence in the system or that collection of additional samples would likely produce more detected results. Using the conservative assumption that the lead concentration is equal to the detection limit for non-detected samples in the translator calculations, it is assumed that the actual dissolved lead concentration would be lower than the assumed value at the detection limit. Thus, the resulting lead translators are slightly higher than they would be if lower detection limits were achieved. The Regional Water Board acknowledges that use of the detection limit for non-detected values is a conservative approach; however, the translators for lead have not been approved. The nine sampling events used to develop the lead translator occurred during high (>26 MGD) and low (<26 MGD) flow regimes. The minimum recommended number of sampling events for developing a translator with data from all flow regimes is 20, which is not satisfied by the Discharger’s dataset. If the dataset were revised to exclude sampling events taken when flows in Wolf Creek exceeded 26 MGD, the dataset would consist of only six valid sampling events, which does not satisfy the minimum number of sampling events necessary to calculate a translator with sampling events taken during low flow regimes. Regardless of the use of the translator, lead does not exhibit reasonable

potential to exceed the CTR criteria and effluent limitations have not been included in this Order.”

There was no further information regarding any reasonable potential analysis for lead.

Federal Regulation 40 CFR 131.38(c)(4) states that: “For purposes of calculating freshwater aquatic life criteria for metals from the equations in paragraph (b)(2) of this section, for waters with a hardness of 400 mg/l or less as calcium carbonate, the actual ambient hardness of the surface water shall be used in those equations.” (Emphasis added). The proposed Permit states that the effluent hardness and the receiving water hardness were used to calculate Effluent Limitations for metals. However, it appears only the effluent hardness was used. Use of the lowest recorded receiving water hardness would result in maintaining the Effluent Limitations for copper, lead and zinc. Use of the effluent hardness in determining reasonable potential is contrary to 40 CFR 131.38(c)(4) as cited above.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Jennings". The signature is written in a cursive, flowing style.

Bill Jennings, Executive Director  
California Sportfishing Protection Alliance